数式テスト

$$\nexists n \forall x, y, z ((n, x, y, z \in \mathbb{N}) \land (x^n + y^n = z^n) \land (n \geq 3))$$

1. 自然演繹

$$\frac{A \Rightarrow B \quad A}{B} (\Rightarrow E)$$

$$\frac{A}{B \lor A} (\lor I) \frac{B}{B \lor A} (\lor I)$$

$$\frac{A \lor B \quad \frac{[A]^1}{B \lor A} (\lor I) \quad \frac{[B]^1}{B \lor A} (\lor I)}{B \lor A} (\lor E, 1)$$

$$\frac{A \lor (B \lor C) \quad \frac{\frac{[A]^2}{A \lor B} (\lor I)}{(A \lor B) \lor C} (\lor V) \quad \frac{[B \lor C]^2 \quad \frac{\frac{[B]^1}{A \lor B} (\lor I)}{(A \lor B) \lor C} (\lor I) \quad \frac{[C]^1}{(A \lor B) \lor C} (\lor I)}{(A \lor B) \lor C} (\lor E, 1)}{(A \lor B) \lor C} (\lor E, 2)$$

$$\frac{A \lor B \quad \frac{\vdots}{\frac{[A]^1}{B \lor A} (\lor I)} \quad \frac{\vdots}{\frac{[B]^1}{B \lor A} (\lor I)}}{B \lor A} (\lor E, 1)$$

X	$P(X = i)$
1	$1/6$
2	$1/6$
3	$1/6$
4	$1/6$
5	$1/6$
6	$1/6$

$$\frac{A \lor (B \lor C) \quad \frac{\frac{[A]^2}{A \lor B} (\lor I)}{(A \lor B) \lor C} (\lor V) \frac{[B \lor C]^2 \quad \frac{\frac{[B]^1}{A \lor B} (\lor I)}{(A \lor B) \lor C} (\lor I) \frac{[C]^1}{(A \lor B) \lor C} (\lor I)}{(A \lor B) \lor C} (\lor E, 1)}{(A \lor B) \lor C} (\lor E, 2)$$

$$\frac{A \lor (B \lor C) \quad \frac{\frac{[A]^2}{A \lor B} (\lor I)}{(A \lor B) \lor C} (\lor I) \frac{[B \lor C]^2 \quad \frac{\frac{[B]^1}{A \lor B} (\lor I)}{(A \lor B) \lor C} (\lor I) \quad \frac{[C]^1}{(A \lor B) \lor C} (\lor I)}{(A \lor B) \lor C} (\lor E, 1)}{(A \lor B) \lor C} (\lor E, 2)$$

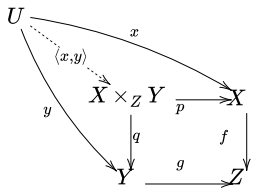
$$\dfrac{(A \to B) \vee (A \to B) \qquad \dfrac{\dfrac{[A \to B]^1 \quad [A]^2}{B}(\to E) \qquad \dfrac{[A \to C]^1 \quad [A]^2}{B}(\to E)}{B \vee C}(\vee I) \qquad \dfrac{}{B \vee C}(\to E)}{B \vee C}(\vee E, 1)}{A \to (B \wedge C)}(\to I, 2)$$

37. 自然演繹

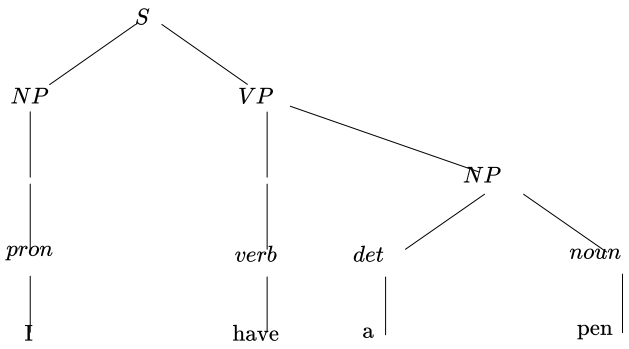
$$\vdash ((A \to B) \to A) \to A$$

$$\dfrac{\dfrac{\dfrac{\dfrac{[\neg A]^2 \quad [A]^1}{\bot}(\neg E)}{B}(\bot)}{A \to B}(\to I, 1) \qquad \dfrac{}{A}(\to I, 1)}{\dfrac{\bot}{A}(\bot_c, 2)}(\neg E)}{(A \to B) \to A \to A}(\to I, 3)$$

2. 可換図式



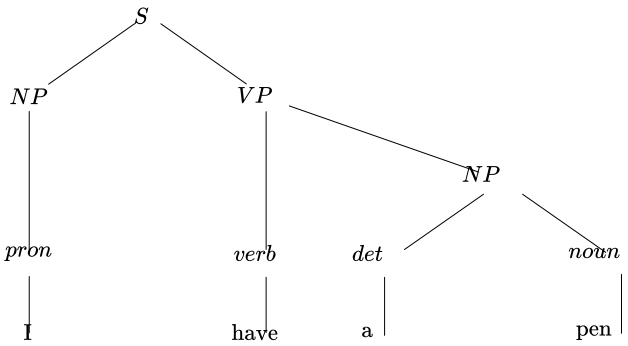
3. 構文木1



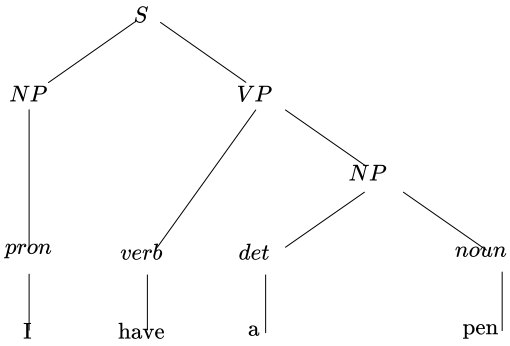
4. マスウェル方程式

$$\begin{aligned}
\nabla \cdot \mathbf{B} &= 0 \\
\nabla \times \mathbf{E} &= -\frac{\partial B}{\partial t} \\
\nabla \cdot \mathbf{D} &= \rho \\
\nabla \times \mathbf{H} &= \mathbf{J} + \frac{\partial \mathbf{D}}{\partial t}
\end{aligned}$$

5. 構文木2


S
NP
VP
NP
pron
verb
det
noun
I
have
a
pen

6. 構文木3


S
NP
VP
NP
pron
verb
det
noun
I
have
a
pen